

Listing of Claims

The listing of claims below will replace all prior versions and listings of claims in the application.

Claims 1-13. (Cancelled)

Claim 14. (Previously presented) A sheet-wise, bimorph composited structure comprising:

a first outer layer composed of an ultra, high-strain polymer;

a first PVDF-TFE layer enabling a locally deformable structure, said first PVDF-TFE layer contacting said first outer layer;

a dielectric layer comprising a ferrotunable material and having embedded therein a matrix circuit comprising a plurality of secondary circuits, said dielectric layer contacting said first PVDF-TFE layer opposite of said first outer layer;

a non-conducting layer composed of a polymer sheet contacting said dielectric layer opposite of said first PVDF-TFE layer;

a layer having therein a control circuitry in a matrix arrangement providing an electromagnetic structure in which frequency characteristics of said secondary circuits within said dielectric layer are varied by permittivity changes within said control circuitry so as to function as a frequency variable, voltage-controlled, microwave antenna array, said layer contacting said non-conducting layer opposite of said dielectric layer;

a second PVDF-TFE layer enabling a locally deformable structure contacting said layer opposite of said non-conducting layer; and

a second outer layer composed of an ultra, high-strain polymer contacting said second

PVFD-TFE layer opposite of said layer.

Claim 15. (Previously presented) The sheet-wise, bimorph composited structure of claim 14, wherein said secondary circuits are selectively interconnected via a plurality of switches each enabled by a magnetic field, a thermal field, or a vibration.

Claim 16-41. (Cancelled)

Claim 42. (New) The sheet-wise, bimorph composited structure of claim 14, wherein said secondary circuits are selectively interconnected via a plurality of switches each enabled by an electrical signal, an electromagnetic radiation, an actuation, or a mechanical reorientation.